

**PRINT THROUGH ELIMINATION IN
FIBER REINFORCED MATRIX COMPOSITE MIRRORS AND METHOD
OF CONSTRUCTION**

5 ABSTRACT OF THE INVENTION

A fiber reinforced matrix composite mirror that eliminates the problem of “print through”. A layer of small unbundled fibers in the matrix diffuses and randomize any stresses that are created by the weave pattern of the fiber reinforcement so that the coarse texture is not transferred to the optical quality surface thus eliminating “print through”.

10 The layer can be provided in a variety of embodiments using random fibrils, a continuous fiber mat or a weave of single or finely towed continuous fibers. The fiber reinforced mirror is constructed by adding a mixture of matrix pre-cursor and fibers or fibrils to a common graphite fiber reinforced matrix construction.